

## SECTION II.

### Analysis of MBE/WBE Availability

BBC collected and analyzed data on the relative availability of minority- and women-owned businesses for two purposes: (a) setting a base figure for the overall annual DBE goal, and (b) developing a benchmark for expected utilization in the disparity analyses. Disparity analysis is one tool to determine how much of the overall annual DBE goal can be achieved through race- and gender-neutral measures.

The study team performed a statistical analysis of ITD contracts to determine the percentage of work expected to go to minority- and women-owned firms. The data required for this statistical analysis came from telephone interviews with firms potentially available for transportation construction and engineering work in the Idaho marketplace, and BBC's compilations of data on more than 4,500 ITD prime contracts and subcontracts.

#### **Figure II-1. Definitions of MBE/WBEs, DBEs and potential DBEs**

**Minority- and women-owned firms.** Firms that reported they were owned and controlled by minorities or women (or identified as such in relevant databases) are counted as MBEs and WBEs in the utilization and availability analysis. "Minority" follows the definitions in the Federal DBE Program, as outlined in Appendix A of this report.

**Certified Disadvantaged Business Enterprises (DBEs).** BBC counted a firm as a certified DBE if it was identified as certified in the ITD DBE Directory at the time that a contract was awarded.

**Potential DBEs.** To formulate the overall annual DBE goal, BBC excluded high-revenue minority- and women-owned firms. Firms that appeared that they could be potentially certified as DBEs based on ownership and revenue were counted in the overall goal. Note that this excluded some high-revenue firms that were DBE certified in 2006. (Construction-related firms with annual revenue of less than \$10 million and engineering-related firms with annual revenue of less than \$5 million were counted as potential DBEs. This is below the revenue limit of \$20,410,000 because of lower Small Business Administration size limits for certain construction and engineering disciplines, the revenue size categories in the availability survey, and to account for the fact that firms above these lower revenue limits are more likely to exceed the net worth limit of \$750,000.)

The balance of Section II describes availability analysis methods, results and implications for ITD's implementation of the Federal DBE Program. Appendix C (Availability Survey) provides additional information on the survey effort.

#### **Measuring MBE/WBE Availability**

**Definitions.** The availability analysis considers three definitions of minority- and women-owned firms:

- Firms that are owned and controlled by minorities or women, whether or not they are certified as disadvantaged business enterprises ("MBE and WBEs");
- Businesses that have been certified as disadvantaged business enterprises ("DBEs"), which means that they are below certain revenue and personal net worth limits; and
- Minority- and women-owned firms that are certified or potentially could be certified as DBEs ("potential DBEs").

BBC's analysis starts by examining relative availability of MBEs and WBEs as defined above (and discussed in Figure II-1).

Because implementation of the Federal DBE Program requires tracking of DBE utilization (and may extend certain program benefits solely to firms certified as DBEs), BBC also reports certain utilization data based on DBE status of the firm. Minority- and women-owned firms not certified as DBEs are not counted in the latter method for estimating DBE utilization.

Finally, ITD must set an overall annual goal for DBE utilization, but many firms that could be certified as DBEs are not currently certified. Consistent with court-reviewed availability analysis in states such as Illinois and Minnesota, BBC analyzes the base figure for the overall DBE goal based primarily on relative availability of minority- and women-owned firms that are potential DBEs, not just those that are currently certified. BBC excludes the highest-revenue MBEs and WBEs from the base figure analysis because they may exceed the revenue ceiling for eligibility for DBE certification.

**Why disparity analysis for MBE/WBEs and not DBEs?** Comparing utilization and availability of minority- and women-owned firms (by race/ethnicity/gender) is the way a researcher should analyze whether or not there are disparities affecting minority- and women-owned firms. The potential that race or gender discrimination affects utilization of firms should be studied by comparing outcomes for firms based on their ownership, not certification status. Firms may be discriminated against based on the race and gender of the business owner regardless of whether they have applied for DBE certification.

Further, the disparity analysis should include the most successful, highest-revenues minority- and women-owned firms in the statistics for MBE/WBE utilization and availability. A disparity analysis for just DBEs excludes these highly successful firms from the statistics for DBEs. Utilization and availability for DBE-certified firms would reflect data for “economically disadvantaged” minority- and women-owned firms compared with results for all firms. One might find disparities for any group of firms for which membership is limited to low-revenue firms.<sup>1</sup>

Finally, white male-owned firms can be certified as DBEs (even though few seek such certification). Disparity analysis based just on certified DBEs is not purely an analysis of disparities by race and gender.

ITD currently only tracks information concerning certified DBEs, as this is what USDOT requires. For purposes of this study, BBC required information on all minority- and women-owned firms whether or not they are currently certified or could be certified (were below revenue and net worth limits), as explained in Figure II-1.

**Survey of businesses potentially related to transportation construction and engineering.** The availability analysis encompassed firms that had done transportation construction- or engineering-related business or had attempted to do business with ITD. BBC attempted to reach every firm on ITD’s bidder list and the study team contacted business establishments in Idaho, Eastern Washington and Northern Utah that were listed in the Dun & Bradstreet (D&B) directory for primary lines of work potentially related to transportation construction and engineering.

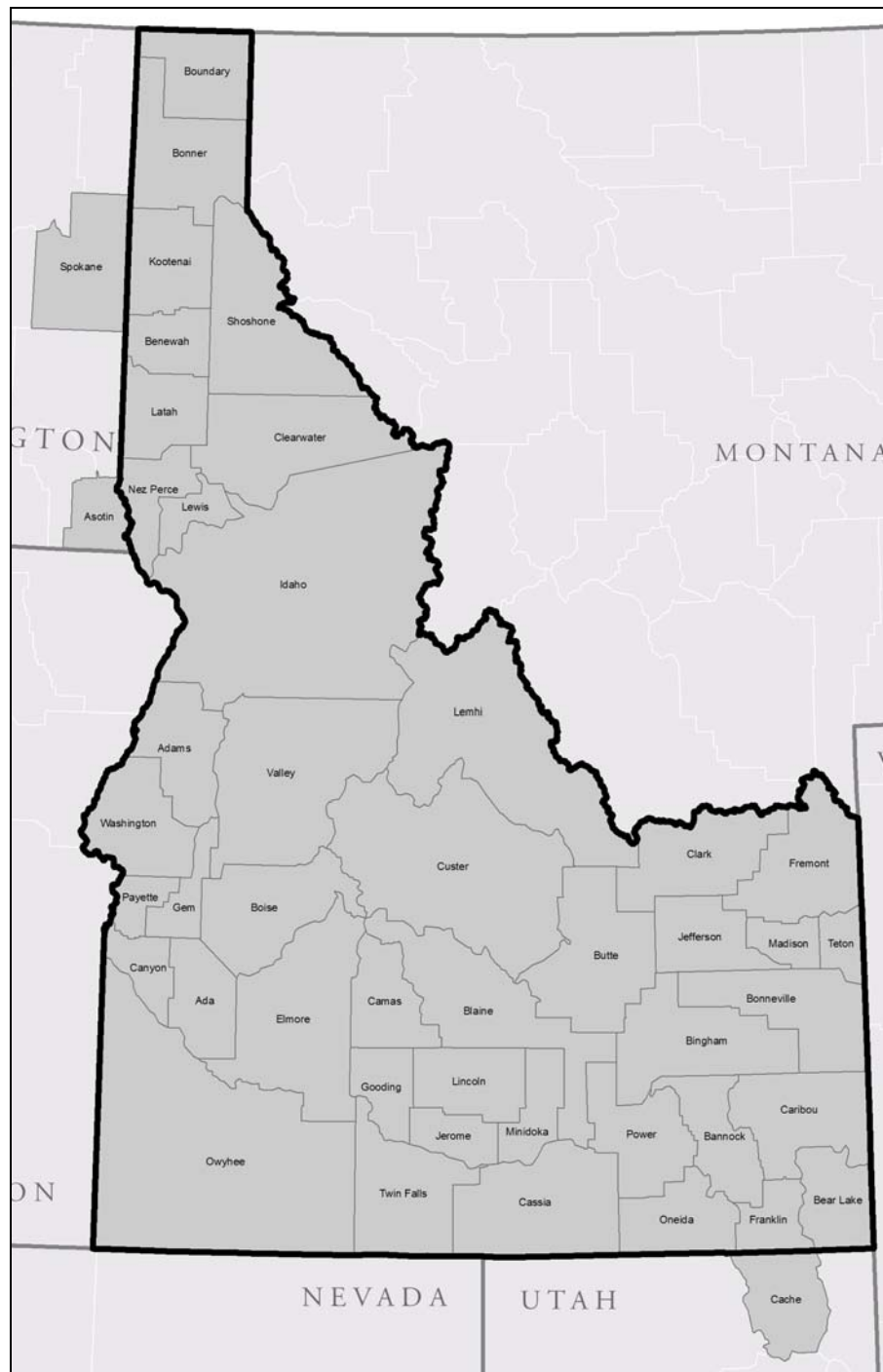
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<sup>1</sup> An analogous situation concerns analysis of possible wage discrimination. A disparity analysis that would compare wages of minority employees to wages of all employees should include both low- and high-wage minorities in the statistics for minority employees. If the analysis removed high-wage minorities from the statistics for minorities, any comparison of wages between minorities and non-minorities would likely show disparities in wage levels. A disparity analysis that only includes certified DBEs in the statistics for minority-owned firms suffers from the same flaw.

**Relevant geographic market area.** BBC selected the Idaho-Eastern Washington-Northern Idaho region as the relevant geographic market area because more than 85 percent of the dollars going to prime contractors or subcontractors on ITD transportation construction and engineering projects from 2002 through 2006 went to firms with locations in this area (85 percent for construction and 88 percent for engineering). In addition to all counties in Idaho, the relevant geographic market area includes Spokane and Asotin counties in Washington and Cache County in Utah, as shown in Figure II-2.

**Figure II-2.  
ITD geographic  
relevant market  
area for  
transportation  
construction and  
engineering**

Source:  
BBC Research and Consulting  
from analysis of ITD  
transportation construction and  
engineering prime contract and  
subcontract dollars, 2002-2006.



**Identification of firms potentially working in the Idaho transportation construction and engineering marketplace.** The study team purchased all D&B listings for business establishments in the Idaho-Eastern Washington-Northern Utah region listed under the Standard Industrial Classification (SIC) codes that BBC determined to be most pertinent to ITD transportation construction and engineering contracts. The study team attempted to contact each of these potential businesses. BBC and Customer Research International (CRI) conducted the telephone interviews from May through July 2007. CRI is a telephone survey research firm in Texas that has substantial expertise conducting these types of surveys. (BBC also sent surveys via fax and e-mail to firms that had requested receiving hard copy versions.)

- These telephone interviews began by confirming that the interviewer had reached the correct business.
- Interviewers then asked the firm owner or manager, “First, I want to confirm that your firm does work related to transportation construction, maintenance or design. Is this correct?” Interviewees were told that this included trying to sell this work, not just successfully performing this work. Interviews continued with firms responding “yes” to this question.
- Interviewers also confirmed or refined the D&B information concerning each firm’s primary line of work.
- The survey collected information on the geographic scope of that work within the state, specific interest in ITD work, and past bidding and performance of transportation construction and engineering contracts for ITD, local governments and the private sector.
- Firms were asked to identify the largest contract or subcontract performed or bid on in the past five years.
- Interviewers asked firms whether they were qualified and interested in work for ITD and/or local governments. Separate questions asked about qualifications and interest in this work as a prime contractor and as a subcontractor.
- The survey asked firms whether they were owned and controlled by minorities and/or women.
- Other firm characteristics were collected as well (see Appendix C).

**Figure II-3.  
Strengths of a  
“custom census” approach**

Federal courts have reviewed and upheld “custom census” approaches to availability that begin with D&B data. The study team’s methodology for analyzing MBE/WBE availability took the previous court-reviewed custom census approach as a starting point and added several layers of additional screening when determining firms available for transportation construction and engineering work.

Some of the reasons for using this approach to measuring relative MBE/WBE availability are summarized in Figure II-3.

**Survey performance.** The study team attempted to complete surveys with all firms in Idaho-Eastern Washington-Northern Utah whose primary lines of business were within transportation construction and engineering-related SIC codes. (There was no “sampling” from the sample frame in preparing the list of firms to be surveyed.)

The study team obtained completed surveys from 3,058 business establishments, or about 45 percent of the business establishments in the sample frame, which is high for this type of research. Not all of these businesses were included as available for ITD work and some establishments were multiple locations of the same firm. After screening potentially available firms and merging responses for firms with multiple locations, there were 560 for-profit firms reporting that they:

- Perform work related to transportation construction, maintenance or design (in the lines of business pertinent to this study);
- Are qualified and interested in performing transportation-related work for ITD in the future, as a prime contractor and/or subcontractor (or supplier or trucker);
- Have attempted to obtain this work in the past (in the public or private sector);
- Indicated the regions of Idaho in which they can perform work; and
- Reported MBE/WBE/majority ownership status.

Appendix C provides additional information about survey performance.

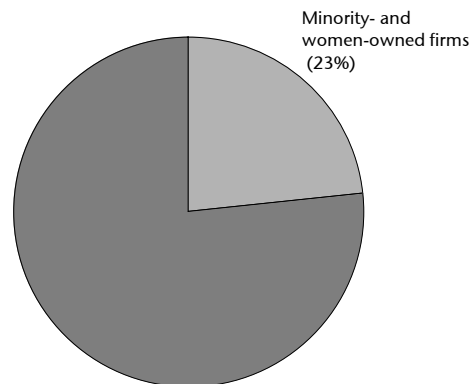
### Results of the Availability Analysis

Of the 560 firms satisfying the conditions discussed above, 23 percent reported that they were minority- or women-owned (see Figure II-4). As this percentage is based on a simple “headcount” of firms, it is just a starting point for the availability analysis. Nearly one-half of the minority- and women-owned firms were certified as DBEs at the time of the survey.

**Figure II-4.**  
**MBE/WBEs as a share of firms available**  
**for transportation contracting work**

Note:  
Unweighted.  
n=560

Source:  
BBC Research and Consulting from 2007 Availability Survey.



**Firms available by location.** Relative MBE/WBE availability does not vary considerably between ITD districts. This is because firms located in one district often work across a number of districts.

### **Firms available by sector and work role.**

BBC also examined MBE/WBE availability by sector, work role and discipline. (Note that statistics for WBEs refers to white women-owned firms, as discussed in Figure II-5.) Figure II-6 on the following page shows the percentage of all firms available within these sub-categories that are minority- or women-owned. (All of the results reported in Figure II-6 are based on headcounts of firms prior to any weighting.) Results show that minority- and women-owned firms comprise a larger share of total firms available for engineering contracts than for construction projects, and for ITD subcontracting work than for prime contracts.

Among transportation construction industry firms reporting qualifications and interest in future ITD transportation work as a prime (and had bid or received work as a prime on past transportation work in the public or private sectors), 21 percent are MBEs or WBEs. MBEs and WBEs are 23 percent of transportation construction industry firms reporting past work as well as qualifications and interest in future ITD work as a subcontractor or supplier.

Among engineering-related firms that had bid or received work as a prime in the past, MBEs and WBEs comprise 25 percent of transportation engineering industry firms qualified and interested in future ITD work as a prime consultant. Among transportation engineering industry firms with past subconsultant experience and qualifications and interested in future ITD work as a subconsultant, 26 percent are MBEs or WBEs.

### **Figure II-5. Coding of firms owned by minority women**

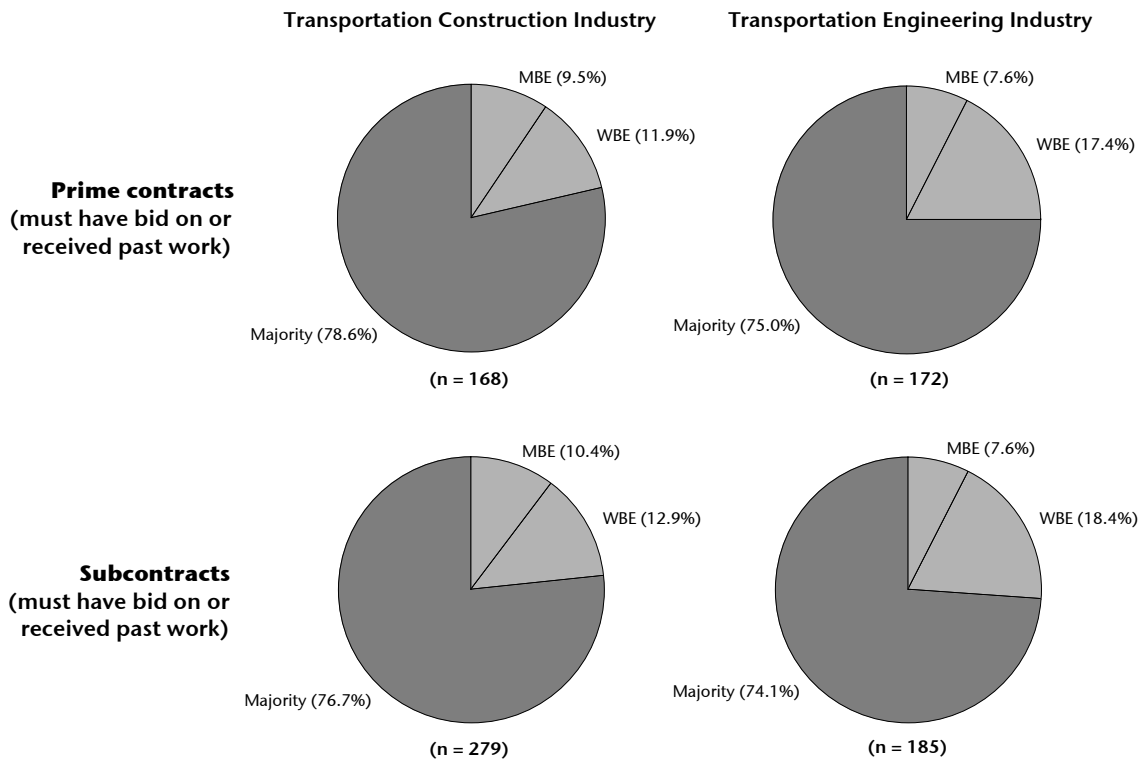
Firms owned by minority women present a challenge in coding for purposes of both the availability analysis and the utilization analysis. BBC considered four options for coding and analysis of firms owned by minority women:

- a. coding these firms as both minority- and women-owned;
- b. creating a unique group of minority female-owned firms;
- c. grouping minority female owned firms with all women-owned firms; and
- d. grouping minority female-owned firms with the relevant race/ethnic group.

BBC chose not to code the firms as both women-owned and minority-owned to avoid potential double-counting when reporting total MBE/WBE utilization and availability. Dividing each race/ethnic group into firms owned by men versus women (e.g., African American male-owned firms, African American female-owned firms, etc.) was also unworkable for purposes of the disparity analysis. Some minority groups had utilization and availability so low even when combining men and women that further disaggregation made it more difficult to interpret results.

After rejecting the first two options, BBC then considered whether to group minority female-owned firms with the relevant minority group or with all women-owned firms. BBC chose to group African American women-owned firms with all African American-owned firms, etc. “WBE” refers to white women-owned firms. Evidence of discrimination against white women-owned firms should be considered evidence of discrimination against women of any race or gender. This definition of WBEs gives ITD information to answer questions that often arise pertaining to utilization of white women-owned firms. There have been questions of whether disproportionate share of work goes to this set of firms.

**Figure II-6.**  
**MBEs/WBEs as a percentage of transportation construction**  
**and engineering-related firms available for ITD transportation contracting**

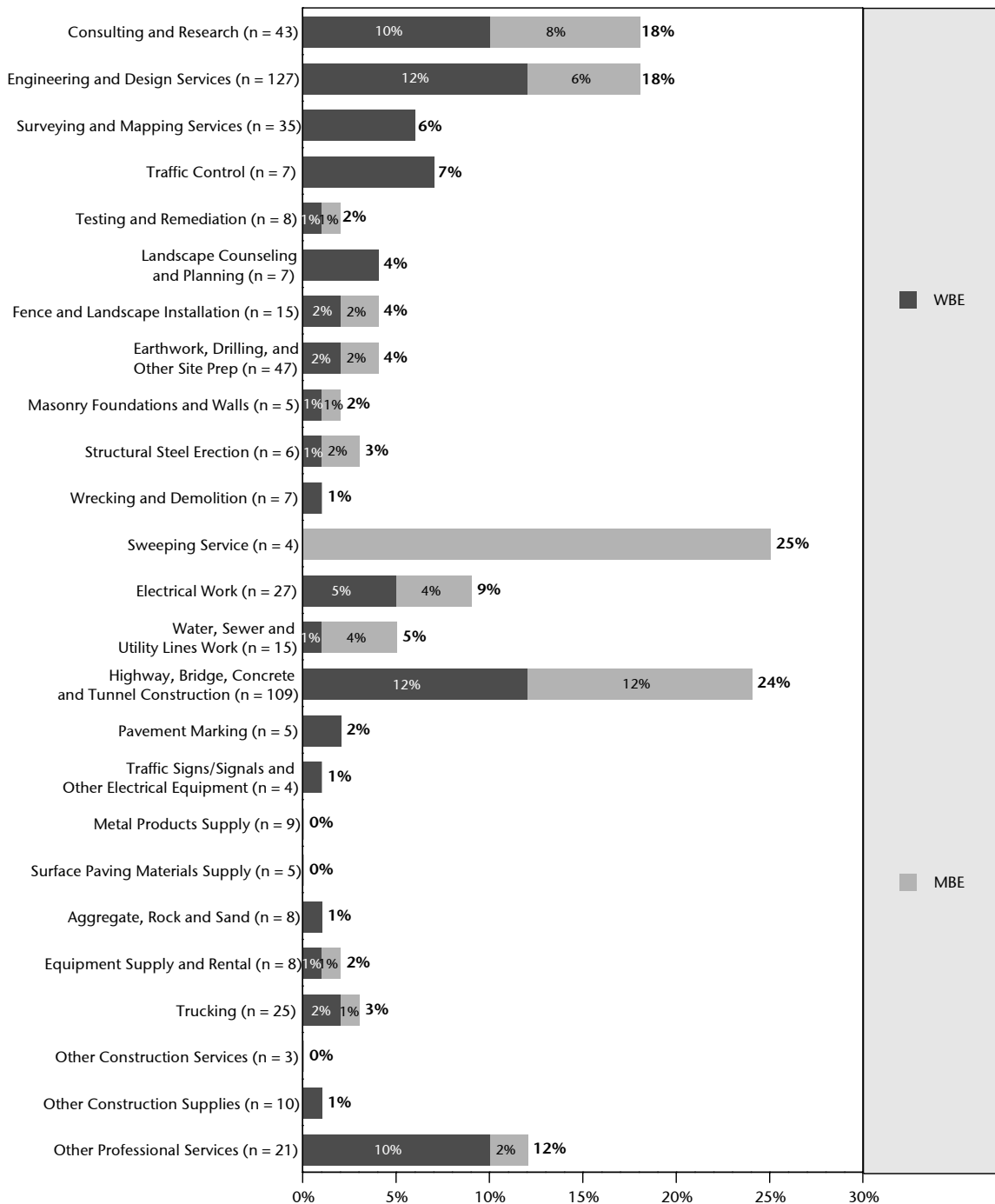


Note: WBE is white woman-owned firms.

Source: BBC Research and Consulting from 2007 Availability Survey.

**Firms available by discipline.** BBC grouped different types of work involved in ITD construction and engineering contracts into 25 disciplines shown in Figure II-7. For example, one-third of electrical firms involved in transportation construction work are minority- or woman-owned. It is important to note that the reported MBE and WBE share of total firms comes from data on firms successfully contacted and surveyed as part of the 2007 Availability Survey. There may be some firms that are minority-, women- or majority-owned operating in these fields that did not complete surveys.

**Figure II-7.**  
**MBE/WBEs as a percentage of transportation construction and engineering industry**  
**firms available for ITD and local government transportation work, by discipline**



Source: BBC Research & Consulting from 2007 Availability Survey.



**Firms by race/ethnicity/gender.** Figure II-8 reports the number of MBE/WBE firms by group from the availability analysis. Most of the available MBE/WBE businesses are white women-, Hispanic American-, or Native American-owned firms.

**Figure II-8.**  
**MBE/WBEs as a percentage of**  
**transportation construction**  
**and engineering industry firms**  
**available for ITD and local**  
**government transportation**  
**work, by race, ethnicity**  
**and gender**

Note:

Numbers may not add to total because of rounding.  
n = 560.

Source:

BBC Research and Consulting from 2007 Availability  
Survey.

Race, ethnicity and gender	Percent of total
African American-owned	0.5%
Asian-Pacific American-owned	0.7
Subcontinent Asian American-owned	0.4
Hispanic American-owned	3.6
Native American-owned	<u>3.6</u>
<b>Total MBE</b>	<b>8.8%</b>
WBE (white women-owned)	<u>14.5</u>
<b>Total MBE/WBE</b>	<b>23.2%</b>

### **Dollar-weighted MBE/WBE Availability**

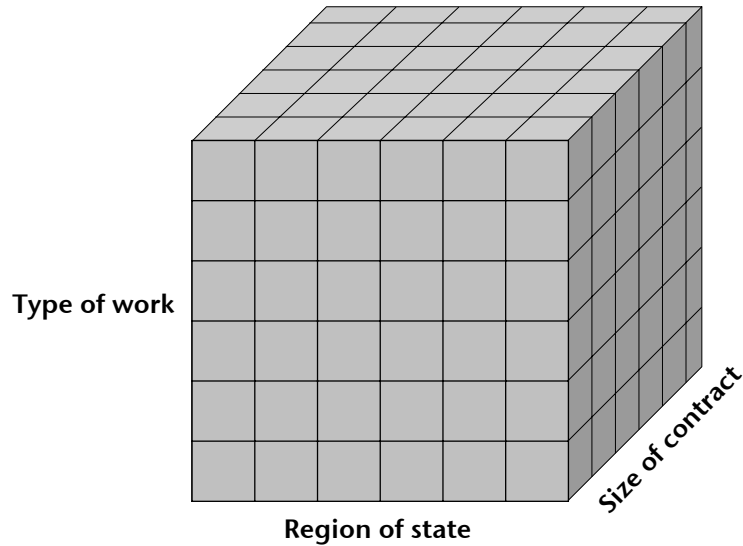
BBC conducted a statistical analysis that examined thousands of prime contracts and subcontracts for ITD projects from 2002 through 2006. For each contract element, BBC estimated the number of minority- and woman-owned firms and the total number of firms surveyed that were available for that work based on:

- Specialization of work;
- Prime contract versus subcontract role;
- Location of work;
- Size of contract or subcontract element; and
- Contract date.

As described in the following pages, BBC then weighted the relative MBE/WBE availability for each contract element by the dollars for that element. Appendix D provides additional information on this process.

**Matrix of relative MBE/WBE availability estimates.** Figure II-9 shows a matrix of the database developed through this availability analysis. The study team separately tracked available firms for each cell of this matrix. Relative MBE/WBE availability within a cell is determined by dividing the number of MBEs and WBEs in that cell by the total number of firms in the cell.

**Figure II-9.**  
**Matrix for the MBE/WBE**  
**availability analysis**



If ABC Company is qualified and interested in performing electrical work as a subcontractor on ITD contracts in the Boise area and performs only small subcontracts, it is shown as an available firm for only that type and size of work as a subcontractor for that geographic area. If a company is qualified and interested in working as both a prime contractor and a subcontractor, and operates across a broad geographic area, then the firm may count as an available business in many different cells of the matrix. The relative MBE/WBE availability for each cell of the matrix is given by the number of MBEs and WBEs in that cell divided by the total number of firms in the cell.

**Specialization of work.** The USDOT suggests considering the availability of firms based on their ability to perform specific types of work. The example USDOT gives in Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program, which is cited in the *Northern Contracting* court decision<sup>2</sup>, is as follows: If 90 percent of an agency's contracting dollars is spent on heavy construction and 10 percent on trucking, the agency would calculate the percentage of heavy construction firms that are MBEs or WBEs and the percentage of trucking firms that are MBEs or WBEs, and weight the first figure by 90 percent and the second figure by 10 percent when calculating overall MBE/WBE availability.<sup>3</sup>

<sup>2</sup> 473 F.3d at 723.

<sup>3</sup> Tips for Goals Setting in the Disadvantaged Business Enterprise (DBE) Program, <http://osdbu.dot.gov/?TabId=133>.

**Qualifications and interest in prime contractor versus subcontractor work.** Although not a requirement in the Federal DBE Program (and not done by the Illinois Department of Transportation in the information reviewed by the Seventh Circuit in *Northern Contracting*<sup>4</sup>), BBC collected information on whether firms reported qualifications and interest in working as a *prime contractor* and as a *subcontractor*. In BBC's statistical model, only firms qualified and interested in prime contracts are counted as available for prime contracts. Firms reporting qualifications and interest in subcontracts are counted as available for these contract components. Many firms reported qualifications and interest in both contract roles, and are counted as available when considering both prime contracts and subcontracts.

**Location of work.** BBC considered the specific regions within Idaho in which firms work in the availability analysis. For example, firms that report they could work in the Northern Panhandle, but not other regions of the state, are only considered available for work in that geographic area (ITD District 1 contracts). Firms operating throughout the state are considered available for work in all regions.

BBC examined work in six different regions that correspond to individual ITD districts. The effect of this geographic weighting is that firms working throughout the state figure more prominently in the availability calculation than firms working in just one part of the state. The weighting process is described in more detail later in this section.

**Size of contract or subcontract element.** In counting available firms, BBC also considered whether a firm had previous experience working or bidding on a project of equivalent size (in dollars) to the specified contract or subcontract element. To be counted as available for subcontract elements, a firm must have been awarded or bid on a past contract or subcontract of similar or greater size to that contract element. For prime contract elements, a firm must have been awarded or bid on a past contract or subcontract of similar or greater size to the entire contract amount.

**Contract date.** To be counted as available for a contract element, a firm must have been in business during or prior to the year in which that prime contract began. Firms that could not recall or did not report an establishment date were presumed to have been founded prior to the study period.

**Weighting of individual availability estimates.** The final step of the availability analysis is to combine the MBE/WBE availability figures for multiple cells to develop aggregate availability figures across many different types of contracts across regions in the state. In general terms, the study team weighted the MBE/WBE availability in a cell by the relative dollars of work in that cell and then summed the weighted availability data to determine an aggregate figure. BBC performed this analysis for each of the prime contract and subcontract elements examined in the study, and then combined results across thousands of contract elements on a dollar-weighted basis. Appendix D explains the collection and analysis of ITD contract data necessary to perform this dollar weighting.

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<sup>4</sup> 473 F.3d at 723.

**Results of the analysis of MBE/WBE availability.** BBC's analysis indicates that MBEs and WBEs would receive 15.3 percent of prime contract and subcontract dollars for federally-funded transportation construction and engineering contracts for 2002 through 2006. This means that 15.3 percent of dollars on federally-funded contracts would go to minority- and women-owned firms (MBE/WBEs) if available MBE/WBEs received the same amount of work as similarly-situated majority-owned firms available for such work. This analysis considered the type of work, contract role, location and size of work involved in each federally-funded prime contract and subcontract and the types, contract roles, locations and contract sizes for work performed by available firms.

Consistent with the non-weighted availability reported in Figure II-8, white women-owned firms comprise the largest portion of the overall dollar-weighted availability. As shown in Figure II-10, dollar-weighted availability of WBEs for federally-funded contracts is 11.6 percent. Native American-owned firms and Hispanic American-owned firms show dollar-weighted availability of 2.2 percent and 1.0 percent, respectively.

**Figure II-10.**  
**Dollar-weighted availability of MBE/WBEs for federally-funded ITD construction and engineering contracts, by race, ethnicity and gender**

Note:

For more detail, see Figure E-38 in Appendix E.

Source:

BBC Research and Consulting from 2007 Availability Survey.

Race, ethnicity and gender	Percent of total
African American-owned	0.1%
Asian-Pacific American-owned	0.2
Subcontinent Asian American-owned	0.2
Hispanic American-owned	1.0
Native American-owned	<u>2.2</u>
<b>Total MBE</b>	<b>3.7%</b>
WBE (white women-owned)	<u>11.6</u>
<b>Total MBE/WBE</b>	<b>15.3%</b>

### Base Figure for Overall Annual DBE Goal

The 15.3 dollar-weighted availability statistic pertains to all minority- and women-owned firms. Many minority- and women-owned firms are not currently DBE certified, and some of the largest MBE/WBEs might not meet the federal eligibility requirements for DBE certification. BBC identified two sets of firms that should not be coded as potential DBEs for purposes of establishing the overall annual goal:

- Firms that had been certified as DBEs but were no longer certified because they exceeded the revenue limits or net worth limits (e.g., they had graduated from the DBE Program).
- High-revenues firms (construction-related firms that reported 2006 gross revenue of more than \$10 million and engineering-related firms with 2006 gross revenue of more than \$5 million). These size categories from the Availability Survey most closely matched U.S. Small Business Administration size thresholds for these disciplines and also account for the fact that firms above these revenue limits are more likely to exceed the net worth limit of \$750,000 than firms below these revenue limits.

Removing these firms reduced the availability statistic by about 5 percentage points to a revised base figure of 10.5 percent. This availability statistic represents utilization expected on ITD federally-funded contracts for firms that are potentially DBEs.

**Figure II-11.**  
**Dollar-weighted availability**  
**of potential DBEs for federally-funded**  
**ITD construction and engineering**  
**contracts, by race, ethnicity and**  
**gender**

Note:

Removes construction firms with reported 2006 gross revenue of more than \$10 million and engineering-related firms with gross revenue of more than \$5 million, and firms formerly certified by ITD as DBEs that had graduated from the program by summer 2007 because they exceeded revenue or net worth limits.

For more detail, see Figure E-155 in Appendix E.

Source:

BBC Research and Consulting.

Race, ethnicity and gender	Percent of total
African American-owned	0.1%
Asian-Pacific American-owned	0.1
Subcontinent Asian American-owned	0.2
Hispanic American-owned	0.8
Native American-owned	<u>2.0</u>
<b>Total MBE</b>	<b>3.2%</b>
WBE (white women-owned)	<u>7.3</u>
<b>Total MBE/WBE</b>	<b>10.5%</b>

ITD should consider the 10.5 percent availability statistic when establishing a base figure for its overall annual goal for DBE participation. Section III of the report, which follows, reviews possible step 2 adjustments to the base figure that may be important to consider before determining a final goal for DBE participation.